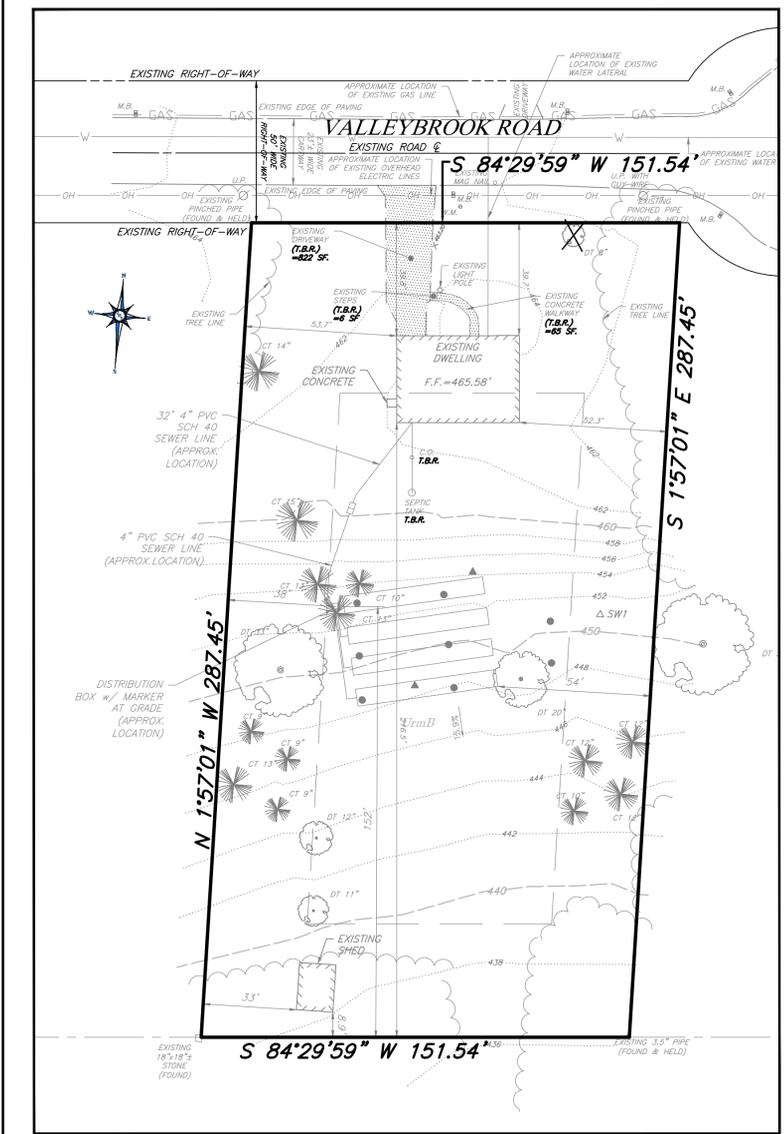


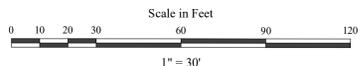
WILLISTOWN TOWNSHIP R-1 RESIDENTIAL ZONING DISTRICT			
AREA & BULK REGULATIONS:	REQUIRED	EXISTING	PROPOSED
LOT AREA (NET)	43,560 SF (MIN.)	43,477 SF (NET)*	43,477 SF (NET)*
LOT WIDTH AT BUILDING LINE	150 FEET (MIN.)	151.54 FEET	151.54 FEET
LOT WIDTH AT STREET LINE	100 FEET (MIN.)	151.54 FEET	151.54 FEET
FRONT YARD	60 FEET (MIN.)	39.7 FEET**	39.7 FEET**
SIDE YARD	30 FT MIN. (EA)/65 FT MIN. (AGG)	52.3 FT/106 FT (AGG)	32.7 FT/86.4 FT (AGG)
REAR YARD	40 FEET (MIN.)	216.5 FEET	189.2 FEET
BUILDING AREA	15% (MAX.)	3.5%	7.6%
IMPERVIOUS COVERAGE	20% (MAX.)	5.1%	11.8%
BUILDING HEIGHT	35 FEET (MAX.)	<35 FEET	<35 FEET

*EXISTING NON-COMFORMITY
**VARIANCE REQUIRED



EXISTING CONDITIONS & DEMO PLAN

SCALE: 1"=30'



SHADED ITEMS SHALL BE REMOVED (SEE CONSTRUCTION SEQUENCE)

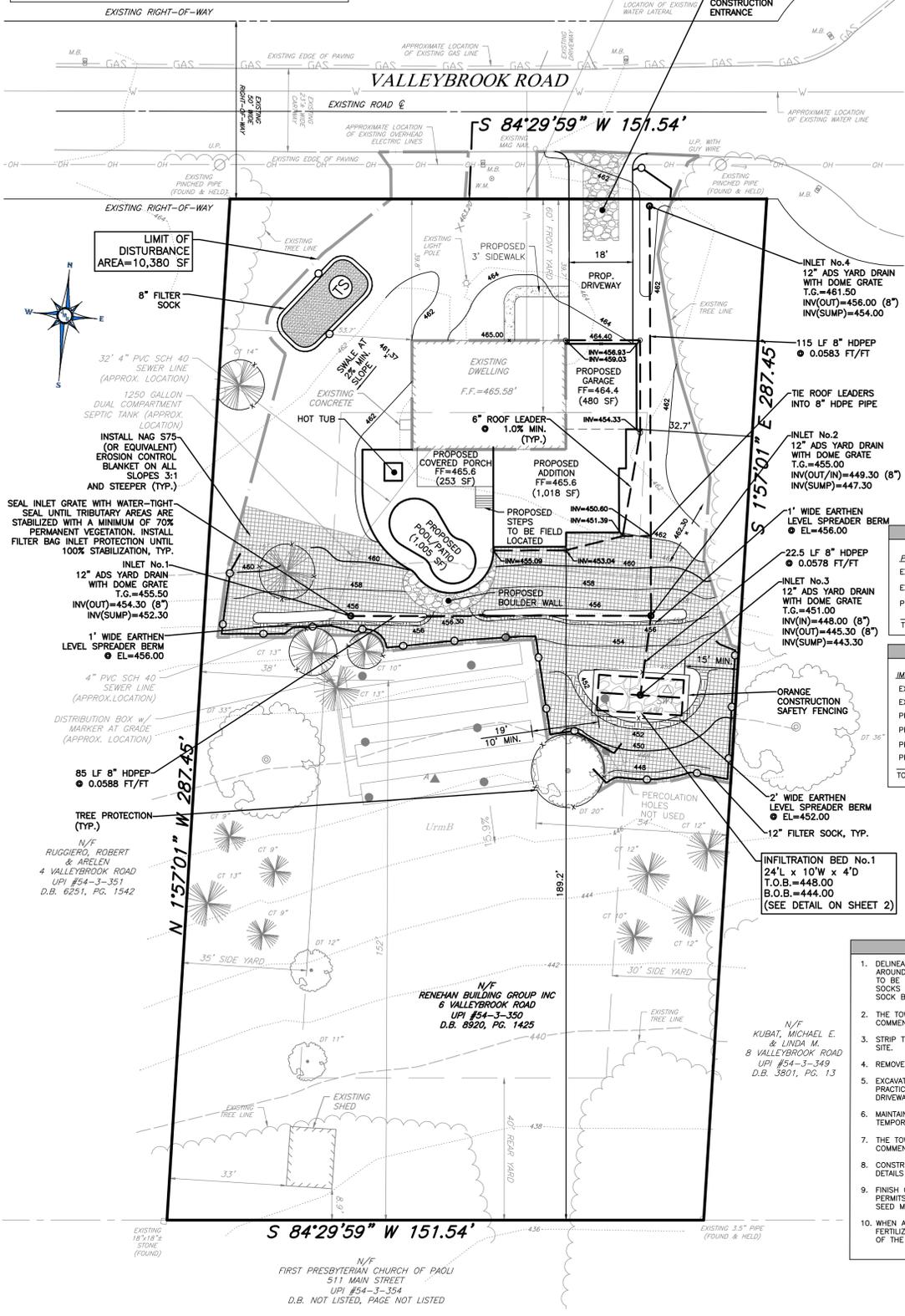
SWM DOUBLE-RING INFILTROMETER INFILTRATION TESTING RESULTS TABLE					
TEST PIT #	MEASURED INFILTRATION RATE (IN/HR)	EXISTING GRADE ELEVATION	TEST DEPTH (FT)	TEST DEPTH (FT)	LIMITING ZONE
SW1	9.00	451.0	444.0	7.0	> 9'

SOILS LIST

SYMBOL	DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	HYDROLOGIC GROUP	SUITABILITY FOR:			CHARACTERISTICS THAT AFFECT:
					LOCAL ROADS & STREETS	ROAD FILL	TOPSOIL	
UrmB	URBAN LAND-GLENELG COMPLEX, 0% TO 8% SLOPES	±80"	60' - 102'	B	NOT RATED	NOT RATED	NOT RATED	EMBANKMENT, DIKES, LEVEES

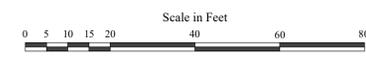
VARIANCE REQUEST:

§ 139-90.B
TO EXPAND THE EXISTING NON-COMFORMING FRONT YARD BY INSTALLING AN ATTACHED GARAGE THAT IS CONSISTENT WITH THE CURRENT FRONT YARD PROVIDED.
§ 139-90.B
REQUIRED FRONT YARD TO BE A MINIMUM OF 60 FEET IN DEPTH.



GRADING AND E&S PLAN

SCALE: 1"=20'



DISTURBED AREA = 10,380 S.F. (0.24 ACRES)

PLAN LEGEND

- BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXISTING BUILDING LINE
- EXISTING EDGE OF PAVING
- EXISTING SETBACK LINE
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING IRON PIN
- TEST PIT LOCATION
- EXISTING UTILITY POLE
- EXISTING SPOT ELEVATIONS
- PROPOSED SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING SOILS
- EXISTING CONIFEROUS TREE
- EXISTING DECIDUOUS TREE
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- LIMIT OF DISTURBANCE LINE
- PROPOSED SILT SOCK
- ORANGE CONSTRUCTION FENCE
- PROPOSED SWM INFILTRATION AREA

BUILDING COVERAGE

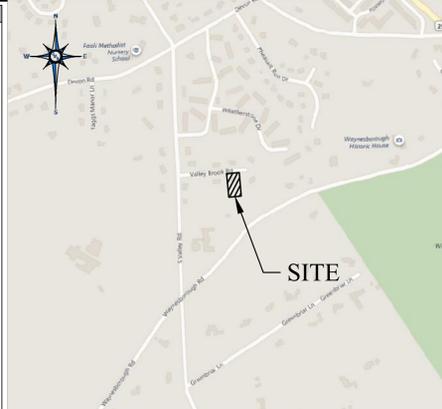
PROPOSED BUILDING COVERAGE TABULATION	
EXISTING DWELLING	1,329 SQ.FT.
EXISTING SHED	215 SQ.FT.
PROP. DWELLING ADDITION/COVERED PORCH	1,751 SQ.FT.
TOTAL	3,295 SQ.FT. (7.6%)

IMPERVIOUS COVERAGE

IMPERVIOUS COVERAGE TABULATION	
EXISTING DWELLING	1,329 SQ.FT.
EXISTING SHED/CONCRETE	220 SQ.FT.
PROPOSED DWELLING ADDITION/PORCH	1,751 SQ.FT.
PROPOSED DRIVEWAY	733 SQ.FT.
PROPOSED POOL/PATIO	1,005 SQ.FT.
PROPOSED SIDEWALK	87 SQ.FT.
TOTAL IMPERVIOUS COVERAGE	5,125 SQ.FT. (11.8%)

SEQUENCE OF CONSTRUCTION

- DELINEATE LIMITS OF DISTURBANCE. PLACE ORANGE CONSTRUCTION FENCE AROUND LOCATIONS OF THE PROPOSED INFILTRATION FACILITIES AND TREES TO BE PROTECTED. INSTALL ROCK CONSTRUCTION ENTRANCE. INSTALL SILT SOCKS AS INDICATED ON THE PLAN. INSTALL ROCK FILTER OUTLETS IF SILT SOCK BECOMES UNMAINTAINED.
- THE TOWNSHIP ENGINEER'S OFFICE MUST BE NOTIFIED PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ACTIVITIES.
- STRIP TOPSOIL AND STOCKPILE AS INDICATED ON THE PLAN. ROUGH GRADE SITE.
- REMOVE EXISTING DRIVEWAY, WALKWAY AND STEPS.
- EXCAVATE DWELLING ADDITION FOUNDATION AND BACKFILL AS SOON AS PRACTICAL. BEGIN DWELLING ADDITION CONSTRUCTION, SIDEWALK AND DRIVEWAY.
- MAINTAIN ALL EROSION CONTROL DEVICES INCLUDING STABILIZATION WITH TEMPORARY SEED MIXTURE DURING CONSTRUCTION.
- THE TOWNSHIP ENGINEER'S OFFICE MUST BE NOTIFIED PRIOR TO COMMENCEMENT OF THE PROPOSED INFILTRATION FACILITIES CONSTRUCTION. DETAILS AND NOTES. INSTALL ALL UNDERGROUND UTILITIES.
- CONSTRUCT THE STORMWATER FACILITIES IN ACCORDANCE WITH THE PLANS, DETAILS AND NOTES. INSTALL ALL UNDERGROUND UTILITIES.
- FINISH GRADE DISTURBED AREAS AS SOON AS BUILDING CONSTRUCTION PERMITS. REDISTRIBUTE TOPSOIL, GRADE, FERTILIZE, SEED WITH PERMANENT SEED MIXTURE AND MULCH.
- WHEN ALL LAWN AREAS HAVE BEEN STABILIZED, REMOVE SILT SOCKS. FERTILIZE, SEED AND MULCH ALL AREAS DISTURBED DURING THE REMOVAL OF THE EROSION CONTROL FACILITIES.



LOCATION MAP SCALE: 1"=800' +/-

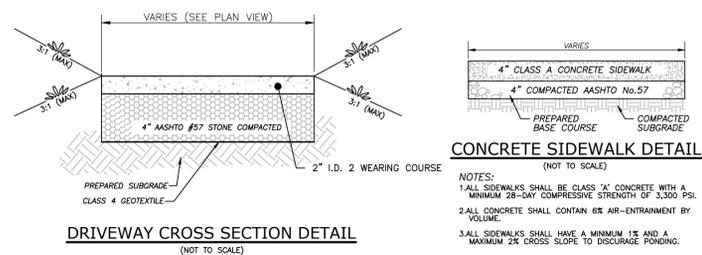
PROJECT GENERAL NOTES:

- OWNER/APPLICANT: REGAN MAHONEY, 6 VALLEYBROOK ROAD, PAOLI, PA 19301
- PROJECT INFORMATION:
 - PARCEL ID: #540303500000
 - UPI: #54-3-350
 - 6 VALLEYBROOK ROAD, PAOLI, PA 19301
 - DEED BOOK 9889, PAGE 1944
 - CROSS/NET TRACT AREA: 43,476 S.F. (0.998 ACS)
- FIELD SURVEY CONDUCTED BY DENIER SURVEYING SERVICES, INC. OF ROBOESNA, PENNSYLVANIA ON JULY, 2018. THE HORIZONTAL DATUM IS NAD83 AND VERTICAL DATUM IS NAVD83. THIS WAS ESTABLISHED BY STATIC OBSERVATIONS CORRECTED BY THE USGS ONLINE POSITIONING USER SYSTEM (OPUS).
- FEMA FLOOD MAP NUMBER 42029C0165G, EFFECTIVE ON 09/29/2017 INDICATES THAT THE PROPERTY IS LOCATED WITHIN ZONE X AND IS OUTSIDE OF THE 100-YEAR FLOODPLAIN.
- SOILS PLOTTED FROM NATIONAL RESOURCES CONSERVATION DISTRICT (NRCS) WEB SOIL SURVEY, BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA).
- AS PER THE NATIONAL WETLANDS INVENTORY THERE ARE NO WETLANDS ON THE SITE OR WITHIN 300 FEET OF THE SITE BOUNDARY.
- THE PROPERTY IS CURRENTLY SERVICED BY PUBLIC WATER SUPPLY AND AN ON-SITE SEWAGE DISPOSAL SYSTEM.
- A COPY OF THESE EROSION AND SEDIMENTATION CONTROL PLANS MUST BE POSTED AT THE CONSTRUCTION SITE AT ALL TIMES IN ACCORDANCE WITH STATE LAW.
- WATERSHED NOTE: THE PROJECT SITE IS LOCATED WITHIN THE CRUM CREEK WATERSHED, WHICH IS CLASSIFIED BY PA CODE CHAPTER 93 AS HIGH QUALITY-COLD WATER FISHES (HQ-CWF).
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ. AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE MATERIAL OR WASTES AT THE SITE.
- UNDER AND SUBJECT, NEVERTHELESS, TO THE FOLLOWING CONDITIONS AND RESTRICTIONS: PRIOR TO THE CONSTRUCTION OF A DWELLING OR ANY OTHER EARTHMOVING ACTIVITIES, GRANTEE SHALL CONSTRUCT THE PERMANENT STORMWATER MANAGEMENT FACILITIES AS SHOWN ON THE STORMWATER MANAGEMENT PLAN PREPARED BY P.E., DATED AND LAST REVISED AND APPROVED BY WILLISTOWN TOWNSHIP. THESE FACILITIES SHALL BE MAINTAINED AND RESTORED BY GRANTEE, SUCCESSORS AND ASSIGNS ('OWNER'), AT HIS OR THEIR SOLE COST AND EXPENSE. SHALL OPERATE, MAINTAIN AND REPAIR SAID STORMWATER MANAGEMENT FACILITIES ON THE LOT IN ACCORDANCE WITH SAID PLAN, SO THAT THE FACILITIES SHALL AT ALL TIMES CONTINUE TO OPERATE AND FUNCTION IN THE SAME MANNER AND CAPACITY AS THEY WERE DESIGNED. IN THE EVENT OF THE FAILURE OF THE OWNER TO MAINTAIN AND REPAIR SAID STORMWATER MANAGEMENT FACILITIES OR RESTORED AS REQUIRED, AND THE TOWNSHIP SHALL BE ASSESSED TO CORRECT OR REPAIR THE ITEMS LISTED IN THE NOTICE FROM THE TOWNSHIP, THEN AND ONLY THEN MAY THE TOWNSHIP EXERCISE THIS RIGHT.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
- A BLANKET EASEMENT IS HEREBY GRANTED OWING WILLISTOWN TOWNSHIP THE RIGHT, BUT NOT THE OBLIGATION, TO ENTER THE PROPERTY TO PERFORM ANY REQUIRED PCSW MAINTENANCE WHICH HAS NOT BEEN PROPERLY PERFORMED IN A TIMELY MANNER. THE HOMEOWNER(S) SHALL BE RESPONSIBLE FOR THE COST OF ANY MAINTENANCE WHICH IS PERFORMED BY THE TOWNSHIP.
- THE STORMWATER MANAGEMENT BMP'S SHOWN ON THIS PLAN ARE PERMANENT FIXTURES AND CANNOT BE ALTERED OR REMOVED WITHOUT THE APPROVAL OF THE MUNICIPALITY.

E&S INSPECTION & MAINTENANCE NOTES

- A. BMP'S**
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING AND RESETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF INSTALLED WILL BE NEEDED.
- WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
- THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
 - ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE REOCCURRENCE OF THE NON-COMPLIANCE.
 - THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED IMMEDIATELY. AREAS DISTURBED DURING REMOVAL OF BMP'S MUST BE STABILIZED IMMEDIATELY.
- B. CONSTRUCTION ENTRANCE**
1. THE STRUCTURES THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE AT THE END OF EACH CONSTRUCTION DAY. ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING THE ROADWAY WITH WATER IS NOT PERMITTED.
- C. SILT FENCE**
- THE FENCE INSTALLATION SHOULD BE INSPECTED AFTER EACH RUNOFF EVENT. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
 - ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE FENCE FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
 - ANY FENCE WHICH HAS UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET. SEE ROCK FILTER OUTLET DETAIL.
 - ADHERE TO ANY MANUFACTURERS RECOMMENDATIONS FOR REPLACING FILTER FABRIC DUE TO WEATHERING.
- D. COMPOST FILTER SOCKS**
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION OR SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
 - BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS.
 - NON-BIODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - SOON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- E. ROCK FILTERS**
- ROCK FILTERS WILL BE REMOVED WHEN CLOGGED WITH SEDIMENTS. MATERIALS MUST BE WASHED COMPLETELY FREE OF ALL FOREIGN MATERIALS OR NEW ROCK USED TO REBUILD THE FILTER.

CONCRETE SIDEWALK DETAIL



JM ENGINEERING, LLC

PROFESSIONAL CIVIL ENGINEERING • LAND PLANNING SERVICES
55 COUNTRY CLUB DRIVE, SUITE 201 • DOWNTOWN, PA 19305
VOICE: (484) 880-7342 • FAX: (610) 594-6669
EMAIL: ADMIN@JMENGINEERING.COM
WEBSITE: WWW.JMENGINEERING.COM

COMMONWEALTH OF PENNSYLVANIA

REGISTERED PROFESSIONAL ENGINEER
DAVID EDWARD RENTSCHLER
No. 059954
DAVID E. RENTSCHLER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE059954

UTILITY USERS LIST

USERS	RESPONSES
AQUA PA	DID NOT RESPOND
COMCAST CABLE	DID NOT RESPOND
PECO ENERGY C/O USDC	DID NOT RESPOND
VERIZON PA LLC	NO CONFLICT
WILLISTOWN TOWNSHIP	DID NOT RESPOND

CALL BEFORE YOU DIG!

FOR MORE INFORMATION, CONTACT THE TOWNSHIP ENGINEER AT THE OFFICE OF THE TOWNSHIP ENGINEER, 55 COUNTRY CLUB DRIVE, SUITE 201, DOWNTOWN, PA 19305. PHONE: (610) 594-6669. FAX: (610) 594-6669. EMAIL: ADMIN@JMENGINEERING.COM. WEBSITE: WWW.JMENGINEERING.COM.

1-800-242-1776
POCS SERIAL NUMBER: 20191781193

PLAN REVISIONS

REV	DATE	DESCRIPTION OF CHANGES

SITE PLAN FOR 6 VALLEYBROOK ROAD

LOCATION: 6 VALLEYBROOK ROAD, PAOLI, PA 19301
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PA

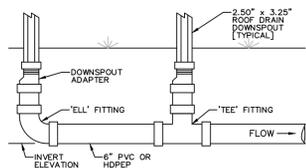
TAX PARCEL NUMBER: 54-3-350

CLIENT: REGAN MAHONEY, 6 VALLEYBROOK ROAD, PAOLI, PA 19301

PROJECT No.: 1313-B2
SURVEY REF.: 1313-B (DDS)
DRAWN BY: N.O.F.
CHECKED BY: D.E.R.
PLAN DATE: JULY 2, 2019
PLAN SCALE: AS NOTED

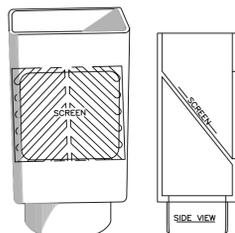
SHEET TITLE: EXISTING CONDITIONS, GRADING & E&S PLAN
SHEET NUMBER: 1 OF 2

Plot Date: Tue, Jul. 02, 2019



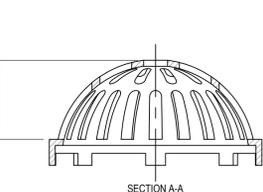
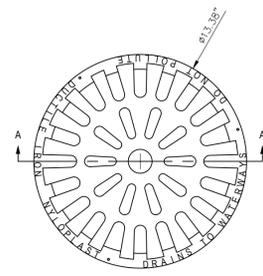
ROOF DRAIN COLLECTION SYSTEM
(NOT TO SCALE)

- NOTES:**
1. ALL ROOF LEADERS SHALL BE A MINIMUM OF 6" DIAMETER HOPEP.
 2. ALL ROOF LEADERS SHALL HAVE A MINIMUM SLOPE OF 1%.
 3. ALL ROOF LEADERS SHALL HAVE A MINIMUM 2" COVER.
 4. CHANGES TO DIRECTION PROVIDED AT ALL HORIZONTAL & VERTICAL CHANGES OF DIRECTION.
 5. ALL ROOF LEADERS SHALL CONNECT TO THE PROPOSED STORMWATER FACILITY.



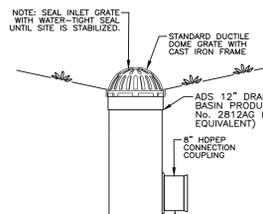
'INVISAFLOW FLEX GRATE' DOWNSPOUT FILTER
(NOT TO SCALE)

NOTE: 'INVISAFLOW FLEX GRATE' DOWNSPOUT FILTERS (OR A SIMILAR ALTERNATE DEVICE APPROVED BY THE TOWNSHIP ENGINEER) SHALL BE UTILIZED ON ALL DOWNSPOUTS.

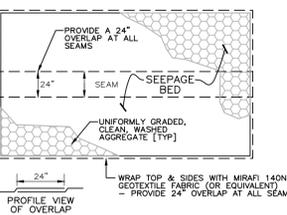


- 12 INCH ADS DRAIN BASIN-DOME GRATE ASSEMBLY DETAIL
(NOT TO SCALE)

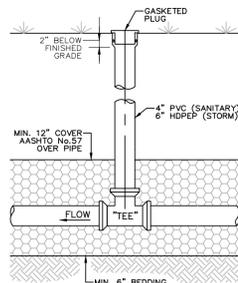
- NOTES:**
1. NYLOPLAST PRODUCT No. 1299020. APPROXIMATE DRAIN AREA = 82.87 SQ. IN. APPROXIMATE WEIGHT WITH FRAME = 18.50 LBS.
 2. QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
 3. PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT



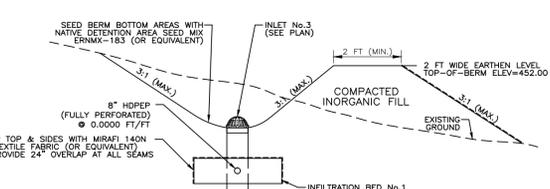
12" ADS DRAIN BASIN DETAIL
(NOT TO SCALE)



INFILTRATION BED WRAPPING DETAIL
(NOT TO SCALE)



TYPICAL CLEANOUT DETAIL
(NOT TO SCALE)



ON-LOT INFILTRATION LEVEL SPREADER BERM DETAIL
(NOT TO SCALE)

BERM SEQUENCE OF CONSTRUCTION NOTES:

1. ALL TOPSOIL AND VEGETATION SHOULD BE STRIPPED FROM THE EMBANKMENT AREA.
2. AREAS WHICH ARE TO RECEIVE FILL SHOULD BE PROTECTED WITH A SEQUENTED PAD OR "SHEEPSFOOT" ROLLER PRIOR TO FILL PLACEMENT. ANY SOFT OR UNSTABLE AREAS NOTED DURING THE PROOFROLLING SHALL BE UNDERGO TO SUITABLE MATERIALS AS DIRECTED BY THE TOWNSHIP ENGINEER.
3. ALL EMBANKMENT FILL SHALL CONSIST OF INORGANIC, READILY COMPACTIBLE, PREDOMINATELY CLAY SOIL FREE OF TRASH, FROZEN MATERIAL, ORGANIC INCLUSIONS, OR EXCESS MOISTURE. FILL SHALL BE PLACED IN HORIZONTAL LIFTS WITH A MAXIMUM THICKNESS OF EIGHT INCHES (8"). EACH LIFT SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY ASTM D 1557.

NATIVE DETENTION AREA SEED MIX (ERNMX-183):

SPECIES LIST

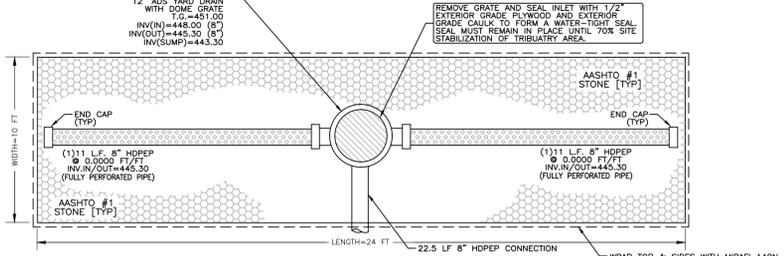
- 40% Virginia Wildrye, PA Ecotype (*Elymus virginicus*, PA Ecotype)
- 23% Fox Sedge, PA Ecotype (*Carex vulpinoidea*, PA Ecotype)
- 20% Salsifygrass, Showers (*Panicum virgatum*, Showers)
- 5% Autumn Bertgrass, PA Ecotype (*Oposthis perennans*, PA Ecotype)
- 3% Soft Rush (*Juncus effusus*)
- 2% Tickgrass (*Brachyotum Bertgrass*), PA Ecotype (*Agrostis scabra*, PA Ecotype)
- 1% Path Rush, PA Ecotype (*Juncus tenuis*, PA Ecotype)

SEED MIX APPLICATION RATE: 20 BULK LBS/ACRE OR 1/2 LB PER 1,000 SF

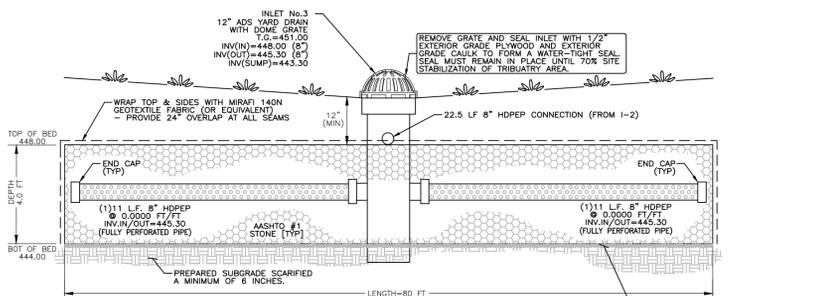
SEED MIX AVAILABILITY: 8884 MERCER PIKE, MEADVILLE, PA 16335

PHONE: (814) 336-2404 FAX: (814) 336-5191

PRODUCT No.: ERNMX-183



INFILTRATION BED DETAIL - PLAN VIEW
(NOT TO SCALE)

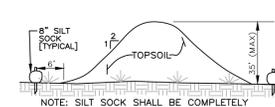


INFILTRATION BED DETAIL - PROFILE VIEW
(NOT TO SCALE)

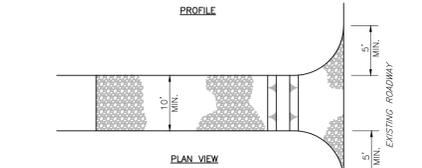
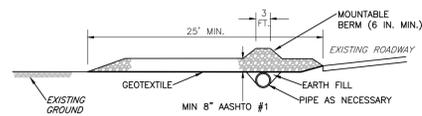
- INFILTRATION BED -

DETAILS, CONSTRUCTION SEQUENCE AND GENERAL NOTES:

1. PRIOR TO CONSTRUCTION, INFILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE SO AS TO PREVENT THE PARKING OR REPEATED MOVEMENT ACROSS THE INFILTRATION AREAS. CONTACT THE BOROUGH ENGINEER TO SCHEDULE AN INSPECTION OF THE BED CONSTRUCTION. A MINIMUM OF 36 HRS NOTICE MUST BE PROVIDED TO THE INSPECTION AGENCY.
2. EXISTING SUBGRADE UNDER THE INFILTRATION BED SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO THE PLACEMENT OF GEOTEXTILE AND STONE BED.
3. PRIOR TO INFILTRATION BED GRADING AND PLACEMENT OF GEOTEXTILE, UPRADIANT AREAS SHALL BE SUFFICIENTLY STABILIZED TO PREVENT THE WASHING OF SEDIMENT INTO THE RECHARGE AREAS. ALTERNATIVELY, THE CONTRACTOR MAY INSTALL SILT SOCKS IN ACCORDANCE WITH THE APPROVED PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE DEPOSITION OF SEDIMENT OR SEDIMENT-LOADED WATERS INTO THE INFILTRATION STRUCTURES AFTER FINAL GRADING.
4. EXCAVATE PROPOSED INFILTRATION BED AREA TO FINAL BED BOTTOM ELEVATION. IF A LIMITING ZONE SUCH AS GROUNDWATER OR BEDROCK IS ENCOUNTERED AT ANY TIME DURING EXCAVATION OF THE INFILTRATION BED, EXCAVATION IS TO BE DISCONTINUED IN THE AFFECTED AREA AND THE OWNER AND ENGINEER NOTIFIED AT ONCE. ALL BED BOTTOMS SHOULD BE LEVEL AFTER FINAL GRADING. CONTACT A LICENSED PROFESSIONAL ENGINEER, PREFERABLY THE DESIGN ENGINEER, TO INSPECT THE BED BOTTOM.
5. UPON APPROVAL OF FINAL SUBGRADE PREPARATION, GEOTEXTILE, PEA GRAVEL/COURSE SAND BASE LAYER AND INFILTRATION BED AGGREGATE SHALL BE PLACED IMMEDIATELY. ANY ACCUMULATION OF DEBRIS OR SEDIMENT WHICH HAS TAKEN PLACE AFTER APPROVAL OF SUBGRADE SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOTEXTILE AT NO EXTRA COST TO OWNER, WHERE EROSION HAS OCCURRED. FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHALL BE REMOVED WITH LIGHT EQUIPMENT & THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES.
6. PLACE GEOTEXTILE AND/OR LINER IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE AND/OR LINES SHALL OVERLAP A MINIMUM OF TWENTY-FOUR (24) INCHES. SECURE GEOTEXTILE AND/OR LINES AT LEAST FOUR (4) FEET OUTSIDE OF BED AND TAKE STEPS NECESSARY TO PREVENT ANY SEDIMENT FROM ENTERING TRENCH.
7. PLACE STONE AGGREGATE AND ALL STRUCTURES/PIPES AS REQUIRED. AGGREGATE SHALL BE CLEAN WITH A WASH LOSS OF NO MORE THAN 0.5 PERCENT. INSTALLATION OF THE STONE SHOULD BE CHECKED PRIOR TO INSTALLATION INTO THE INFILTRATION BED TO ENSURE THAT IT IS CLEAN WASHED STONE AGGREGATE THAT DOES NOT MEET THIS CRITERIA WILL BE REMOVED AT NO EXTRA COST TO THE OWNER AND THE BEDS RESTORED TO THE OWNER'S SATISFACTION.
8. FOLLOWING PLACEMENT OF BED AGGREGATE, THE GEOTEXTILE SHALL BE FOLDED OVERTOP THE BED WITH A MINIMUM OVERLAP OF TWENTY-FOUR (24) INCHES TO PROTECT FROM SEDIMENT WASHOUT ALONG BED EDGES. TOPSOIL (OR APPROPRIATE MATERIAL SPECIFIED BY PARTICULAR DESIGN) WILL BE USED TO FILL ABOVE THE BED TO THE SPECIFIED HEIGHT.
9. BACKFILL AND COVER STONE BED WITH EXCAVATED MATERIAL. ENSURE ALL BED INLETS ARE SEALED OFF WITH WATER-TIGHT SEALS TO PREVENT ANY SEDIMENT FROM ENTERING BED.
10. UPON COMPLETION OF THE INFILTRATION BED CONSTRUCTION, IMMEDIATELY STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEED MIX.
11. INFLOW AND OUTFLOW POINTS INTO THE SEEPAGE BED SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. THE OVERFLOW PIPE SHOULD BE KEPT IN GOOD WORKING ORDER.



TOPSOIL STOCKPILE DETAIL
(NOT TO SCALE)



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

INSTALLATION NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

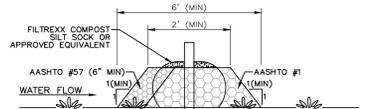
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH OR CROSSED.

INSPECTION/MAINTENANCE NOTES:

ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

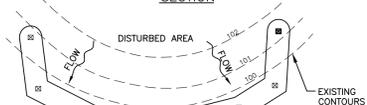
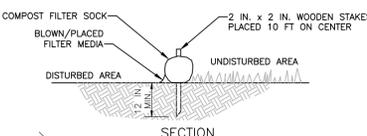
REFER TO GENERAL E&S NOTE #14 ON E&S PLAN SHEET FOR PROPER REMOVAL OF SEDIMENT DEPOSITS.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE
(NOT TO SCALE)



SILT SOCK ROCK FILTER OUTLET DETAIL
(NOT TO SCALE)

- NOTES:**
1. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE ROCK FILTER OUTLETS.
 2. THE HEIGHT OF THE ROCK FILTER SHALL BE 5/6 THE HEIGHT OF THE SILT SOCK.



STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK
(NOT TO SCALE)

INSTALLATION NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

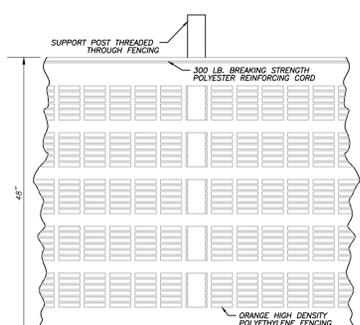
INSPECTION/MAINTENANCE NOTES:

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GRADE HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

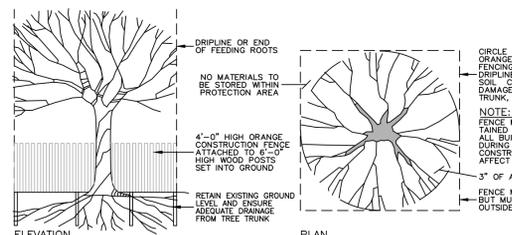
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

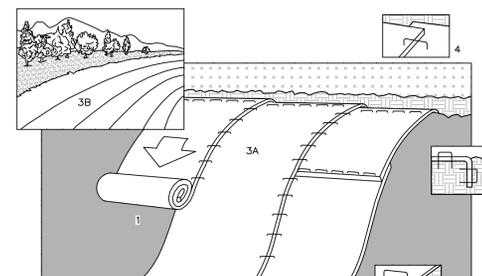


CONSTRUCTION FENCING DETAIL
(NOT TO SCALE)

NOTE: CONSTRUCTION FENCING MUST BE PROVIDED FOR THE PROTECTION OF ALL INFILTRATION FACILITIES. HOWEVER, WOODEN STAKES AND STRING LINE MAY BE USED FOR LIMITS OF DISTURBANCE DELINEATION IF ALLOWED BY THE LOCAL CONSERVATION DISTRICT.

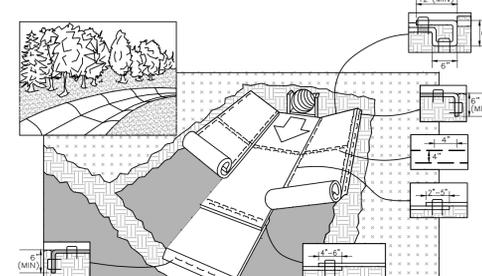


TREE PROTECTION DETAIL (SINGLE TREE)
(NOT TO SCALE)



GEOTEXTILE BLANKET SLOPE INSTALLATION
(NOT TO SCALE)

- SLOPE INSTALLATION NOTES:**
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 3" OVERLAP.
 5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.



GEOTEXTILE BLANKET CHANNEL INSTALLATION
(NOT TO SCALE)

CHANNEL INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL & FOLD REMAINING PORTION OF THE SOIL BACK OVER THE SEED AND COMPACTED SOIL. SECURE THE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN THE BOTTOM OF THE CHANNEL. THE BLANKET WILL UNROLL WITH THE APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES/STAKES APPROXIMATELY 12" APART IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END-OVER-END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE DOUBLE ROW OF STAPLES STAGGERED 4" APART ON CENTER TO SECURE BLANKETS.
5. FULL-LENGTH EDGE OF THE BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDENT ON BLANKET TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30-40 FT INTERVALS. PLACE A ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER THE ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
9. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

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COMMONWEALTH OF PENNSYLVANIA

REGISTERED PROFESSIONAL ENGINEER

DAVID EDWARD RENTSCHLER

Professional Engineer

DAVID E. Rentschler

DAVID E. RENTSCHLER

PROFESSIONAL ENGINEER

PENNSYLVANIA LICENSE NO. PE059954

UTILITY USERS LIST

USERS	RESPONSES
AQUA PA	DID NOT RESPOND
COMCAST CABLE	DID NOT RESPOND
PECO ENERGY C/O USIC	DID NOT RESPOND
VERIZON PA LLC	NO CONFLICT
WILLISTOWN TOWNSHIP	DID NOT RESPOND

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES THE CONTRACTOR TO USE PROPER UNDERGROUND UTILITY LOCATING DEVICES TO IDENTIFY THE LOCATION OF ALL UTILITIES BEFORE THE BEGINNING OF ANY CONSTRUCTION. CALL 811 TO REQUEST A FREE SERVICE CALL TO IDENTIFY THE LOCATION OF ALL UTILITIES BEFORE THE BEGINNING OF ANY CONSTRUCTION.

1-800-242-1776

POCS SERIAL NUMBER: 20191781193

PLAN REVISIONS

REV	DATE	DESCRIPTION OF CHANGES

SITE PLAN FOR 6 VALLEYBROOK ROAD

LOCATION: 6 VALLEYBROOK ROAD PAOLI, PA 19301

WILLISTOWN TOWNSHIP CHESTER COUNTY, PA

PARCELS: TAX PARCEL NUMBER: 54-3-350

CLIENT: REGAN MAHONEY 6 VALLEYBROOK ROAD PAOLI, PA 19301

PROJECT No.: 1313-B2

SURVEY REF.: 1313-B (DSD)

DRAWN BY: N.O.F.

CHECKED BY: D.E.R.

PLAN DATE: JULY 2, 2019

PLAN SCALE: AS NOTED

SHEET TITLE: CONSTRUCTION & E&S DETAILS & NOTES

SHEET NUMBER: 2 OF 2

Plot Date: Tue, Jul, 02, 2019

File: 2 DETAIL SHEET.DWG